

CANDIDATE'S GUIDE TO THE CALIFORNIA STATE BOARD OF PHARMACY LICENSURE EXAMINATION

PART I: INTRODUCTION

PURPOSE

This guide will assist you in preparing for the California pharmacist licensure examination. The board strongly recommends that you study every part carefully and methodically well in advance of the licensure examination. Failure to do so may result in your dismissal from the examination or failure to achieve a passing score.

The guide describes in considerable detail what to expect once you arrive at the examination site. It also provides recommendations for study, information on the format of the examination, a general description of each examination section and examples of test items you will encounter.

RECIPROCITY

California does NOT have a reciprocal licensing agreement with any other state or nation. This means that even if you are licensed as a pharmacist in another state or nation, or have passed a National Association of Boards of Pharmacy Licensure Examination (NABPLEX), you are required to sit for the California State Board of Pharmacy licensure examination and to achieve a passing score to practice pharmacy.

SPECIAL ASSISTANCE AVAILABLE FOR APPLICANTS WITH DISABILITIES

The Board of Pharmacy, as required by the Americans with Disabilities Act, provides special assistance to "qualified individuals with disabilities." An "individual with a disability" is a person who: (1) has a physical or mental impairment that substantially limits a "major life activity," (2) has a record of such an impairment, or (3) is regarded as having such an impairment. "Major life activities" include functions such as caring for oneself, performing manual tasks, walking, seeing, hearing, speaking, breathing, learning and working.

A "qualified" individual with a disability is one who meets the essential eligibility requirements for the California pharmacist licensure examination. The board will not deny a qualified person with a disability admission to the pharmacist licensure examination simply because the person has a disability. While the board is not required to take actions that fundamentally alter the nature of the examination, the board will take other reasonable actions to ensure that individuals with disabilities may take the examination.

The board will make reasonable modifications to its policies, practices and procedures in order to accommodate individuals with disabilities. The board will

furnish auxiliary aids and services when necessary to ensure effective communication, unless a fundamental alteration in the examination would result. The board will not charge individuals with disabilities for the costs of these measures.

The board cannot provide reasonable accommodations to an applicant with a disability if the board is unaware of an individual's need. However, the board will not require an individual with a disability to accept a special accommodation if the individual chooses not to accept it.

An applicant who needs an accommodation to take the board's examination must advise the board by the deadline for filing the exam application (60 days before the first day of the examination). This notification must include sufficient documentation to enable the board to determine the need for and the appropriateness of the accommodation requested.

Contact the board for more information about reasonable accommodations.

PART II: PREPARING FOR THE LICENSURE EXAMINATION

WHERE TO BEGIN

The licensure examination is designed to evaluate a candidate's ability to practice pharmacy. It is prepared by a committee composed of board members, practitioners and faculty of California schools of pharmacy. Examination questions are based on the content outline presented in Part VIII which is derived from the "Standards of Practice for Profession of Pharmacy," American Pharmacy, Vol. NS19, No. 3, Mar. 1979) and the Competency Statement developed by the board (refer to Part VI).

These documents reflect the board's philosophy of the professional responsibilities of a practicing pharmacist and should serve as a basis for study. Applicants should review this statement and the de-tailed content outline carefully and plan a schedule of study or review. Applicants may also wish to consult with a recently licensed pharmacist for advice.

INTERNSHIP EXPERIENCE

All applicants must complete a minimum of 1,000 hours of internship experience in order to be eligible to sit for the licensure examination. (Note: 1,500 hours of internship experience are required for licensure.) Significant portions of the examination relate directly to practice situations. Therefore, experience acquired during internship increases the likelihood that these questions will be answered correctly.

REVIEW COURSES

On occasion, private entrepreneurs will provide so-called "review" courses for a fee. The board has no information to indicate that applicants who take these courses have a higher pass rate than those who do not. The providers of such courses are in no manner associated with the Board of Pharmacy, nor do they have access to the board's examination materials. To the contrary, the board makes every effort to assure that the contents of its examinations remain confidential. Aside from various security measures, the questions appearing in the examination are continually revised to reflect current practice.

In addition, it is illegal for an individual to attempt to obtain questions from a licensure examination by any means. An examinee who provides any individual with specific information regarding the questions that appear in the licensure examination is subject to prosecution. (Refer to Part IV.)

PART III: WHAT TO EXPECT AT THE EXAMINATION SITE

ITEMS APPLICANTS MUST BRING TO THE EXAMINATION

Applicants are required to bring:

1) The Candidate's Identification Card (ID card)

Every applicant who is scheduled to take the licensure examination will receive an ID card from the board. This card is mailed to the address appearing on the application and will contain a photograph of the applicant, an identification number, the address of the examination site, the dates of the examination and the starting times.

2) One additional form of photo identification

The additional photo identification can be a driver's license, student body card, Department of Motor Vehicles identification card or passport. Applicants without this second form of photo identification will not be permitted to take the examination.

In addition to the above, applicants may wish to bring to the examination:

- 1) A watch
- 2) A high quality eraser

The board will provide pencils and calculators to use to take the examination. Only board-provided pencils and calculators will be permitted in the examination room.

PROHIBITED MATERIALS

Applicants may not bring food, beverages, purses, backpacks, books, dictionaries or notes into the examination room -- none of these items will be

permitted inside the examination room. The board cannot be responsible for the safe storage of these materials outside the examination room while the examination is in progress.

Cameras and/or recording devices of any kind are prohibited. Do NOT bring pens, pencils or calculators into the examination room; pencils and calculators will be provided to you before the examination. Calculators brought into the examination room that are not provided by the board will be confiscated.

CHECKING IN

Applicants who have received their Candidate ID cards from the board have been scheduled to take the examination. On the day of the examination, they must report to the examination site by the designated time and must present their ID card and second form of photo-identification for admission into the examination room. Anyone arriving late may be refused admission.

Any candidate who loses his or her ID card before the date of the examination should contact the board's office in Sacramento immediately. If insufficient time remains to issue a duplicate, the candidate will be advised to appear at the examination site with a recent 2" x 2" photograph, and suitable personal identification. Failure to do so will result in denial of admission to the examination.

PART IV: ONCE INSIDE THE EXAMINATION ROOM

PERMITTED MATERIALS

The ONLY materials permitted on the tables inside the examination room are the candidate ID card, the test booklet and answer sheet, and the board-provided pencils and calculator. You will be provided with a plastic bag for approved personal items (e.g., wallet, eyeglass case, money, hotel room key). This bag must be stored beneath your chair.

CHEATING

Once the examination begins, no talking is permitted between applicants. Cheating, regardless of its nature, is a serious breach of conduct and will not be tolerated. Section 1721 of the California Code of Regulations states:

"An applicant for registration as a pharmacist who engages in dishonest conduct during the examination shall not have his or her examination graded and shall be denied the opportunity to take examination at its next administration and shall surrender his or her intern card until such time as he or she takes the licensure examination."

The following are a few examples of what, in the board's opinion, constitutes cheating during an examination.

- 1) Using books, notes or other prohibited aids, recorders, or unauthorized calculators.
- 2) Looking at another applicant's paper or answer sheet.
- 3) Failing to stop writing when the end of the testing session is announced.
- 4) Giving oral or written information to another applicant, or permitting another applicant to view an answer or answer sheet.
- 5) Receiving oral or written information from another applicant.
- 6) Failing, for any reason, to conform to the rules of conduct announced at the beginning of the examination, or failing to follow a proctor's instructions.
- 7) Removing or attempting to remove examination materials from the examination room, whether original copies or transcriptions.
- 8) Tampering or altering the pre-coded answer sheet.
- 9) Intentionally mismarking the pre-coded sheet. (Refer to Part V.)

CONFIDENTIALITY OF EXAMINATION MATERIALS

The licensure examination is the exclusive property of the California State Board of Pharmacy and the confidentiality of its material is protected under California Civil Code (Section 980) and the California Code of Regulations (Section 1723.1). Any individual who directly or indirectly plagiarizes or infringes on the board's right to maintain the confidentiality of its contents may be charged under California law. Furthermore, any individual who memorizes a test item with or without intent to provide this information to the provider of a review course is engaging in a conspiracy to plagiarize confidential examination material.

California Business and Professions Code section 123 makes it a misdemeanor for anyone to compromise or attempt to compromise a licensing examination. Persons convicted of this crime are personally liable for up to \$10,000 in damages and the costs of litigation in addition to other penalties. The board also may deny or revoke a license on grounds that the applicant has compromised or attempted to compromise a licensing examination.

THIS STATEMENT SERVES AS A PUBLIC NOTICE THAT ANY INDIVIDUAL ENGAGED IN ACTIONS WHICH ABRIDGE THE CONFIDENTIALITY OF THE

EXAMINATION MATERIAL WILL BE CHALLENGED UNDER THE LAWS OF THE STATE OF CALIFORNIA.

TIME ALLOCATED FOR EACH SECTION OF THE EXAMINATION

Before beginning each testing session, you will be given instructions to check that your examination booklet contains the correct number of pages and your candidate ID number appears on the booklet and the answer sheet. The booklet for the essay section should have your ID number stamped on every page.

Specific amounts of time are assigned for completion of each part of the examination (see Part V, Typical Examination Schedule). At the end of each testing session, all candidates will be told to stop writing, close their test booklets and lay their pencils down. All candidates are to remain seated until all examination booklets and answer sheets have been collected.

Candidates who complete their work before time is called may be dismissed early by raising their hands and remaining seated until their examination booklet and answer sheet are collected. No person will be dismissed during the last 10 minutes of a testing session.

PART V: THE LICENSURE EXAMINATION

TYPICAL EXAMINATION SCHEDULE

The licensure examination requires one and one-half days to complete:

DAY ONE: Administration of Essay Section and Multiple-Choice Section - Part I

- | | |
|-------|---|
| 7:45 | Admit candidates |
| 8:15 | Instruct candidates on rules and procedures |
| 8:30 | Begin administration of essay section |
| 11:30 | End of testing session - lunch break begins |
| 12:30 | Lunch break ends. Re-admit candidates, announcements and instructions continue. |
| 1:00 | Begin administration of multiple-choice section - Part I |
| 4:00 | End of testing session for first day |

DAY TWO: Administration of Multiple-Choice Section - Part II

- | | |
|------|---|
| 7:45 | Admit candidates, continue announcements and instructions |
| 8:15 | Begin administration of multiple-choice section |

11:15 End of testing session for second day

TESTING METHODS

Two kinds of test questions (items) are used in the licensure examination.

- 1) Essay Section: these are short answer questions that require a written response (see examples in Part IX)
- 2) Multiple Choice Section: these are questions in which four answers are provided, one of which is correct (see examples in part IX).

The specific content of the examination is discussed in Part VIII.

THE ESSAY SECTION

Essay questions differ in the number of points assigned to them and are graded on the basis of accuracy and completeness of information.

Examination candidates should carefully consider the following:

- 1) Read an essay question several times before attempting to answer it. Make certain that you understand exactly what is being asked.
- 2) Think out your answer before writing in order to avoid having to begin all over again.
- 3) Write legibly; avoid small or light lettering. **This point cannot be overemphasized. AN APPLICANT WILL RECEIVE NO POINTS IF AN ANSWER CANNOT BE READ.**
- 4) If your answer requires more space than is provided, write "continued on the back" and continue your answer on the back of the SAME PAGE. **Do not continue your answers on the back of the previous or any other page.** When the examination is graded, its various pages will be separated and sorted into separate bundles. Answers that have been continued on other pages will not be seen and will not be graded.

THE MULTIPLE-CHOICE SECTION

The multiple choice examination is administered in two parts (Part I and Part II), each of which is three hours long. Answers are recorded on computerized answer sheets. Test questions are contained in a separate test booklet.

Examination candidates should carefully consider the following:

- 1) For each multiple-choice question, only ONE answer is correct.
- 2) Since scores on the examination are based on the number of correct answers, there is no penalty for guessing. It is to your advantage to answer every question.
- 3) To minimize errors in marking your answer sheet, answer questions in order and mark the answers one by one. DO NOT wait to mark all of your answers on the answer sheet until the end of the testing session.

The three hours allotted for each part of the examination is strictly adhered to.

Answers marked in the test booklets and not on the answer sheet do not count toward your score. If you decide to skip a question, be sure to carefully locate the correct answer space corresponding to the number of the next question you are answering.

The answer sheet:

A facsimile of the answer sheet faces this page. A separate answer sheet will be provided to you at the start of both Part I and Part II of the multiple choice section of the examination. The answer sheets for Part I and II will be pre-coded with your ID number. At the examination site while instructions are being given, you will be directed to complete the requested additional information on your answer sheets.

YOU ARE RESPONSIBLE FOR CORRECTLY MARKING YOUR ANSWER SHEET. FAILURE TO DO SO MAY RESULT IN A FAILING SCORE OR A DELAY IN THE RELEASE OF YOUR RESULTS.

Marking the answer sheet:

- 1) To record your answer on the answer sheet, blacken completely the box marked with the letter corresponding to the answer you select from the choices provided in your test booklet.
- 2) All candidates will be supplied with special pencils in the examination room. These pencils MUST be used on the answer sheets. The answer sheets are scored by a machine which detects NO other marks accurately.
- 3) Be careful not to make marks anywhere on the answer sheet outside of the areas specified, since the machine rejects answer sheets so marked. If you erase, erase completely.
- 4) Only answers recorded on the answer sheet will be scored. No credit will be given for answers written or otherwise indicated in the test booklet.

AMBIGUOUS QUESTIONS

Occasionally, candidates may encounter questions

which they believe are incomplete or otherwise ambiguous. When this occurs, record your comments on the Candidate Comment Form which will be provided to you at the start of each testing session. If the board agrees that the question is in error or is ambiguous, the question will be discarded.

Do not ask the examination proctors for clarification about a question, the proctors have no knowledge about the examination questions.

PART VI: PROFESSIONAL COMPETENCY IN PHARMACY

INTRODUCTION

The Professional Competency in Pharmacy Statement, first written in 1971 and revised several times since, is a statement which serves two purposes. First, it outlines the level of professional competencies which the State Board of Pharmacy tests for in its professional licensure examination. Second, it provides goals and lends support for the direction in which the practice of pharmacy is developing in California.

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A pharmacist is a professional whose overall function should contribute to better patient care through the promotion of appropriate therapy. The pharmacist should be able to recognize the significance of clinical diagnoses for commonly encountered medical conditions, comprehend the medical management of the patient and be capable of conferring with both the patient and the patient's physician regarding drug therapy.

The pharmacist should have knowledge of prescription and nonprescription drugs and drug products, including indications, efficacy and dosage; their mechanism(s) of action; their fates and dispositions (if known); their major contraindications and potential side effects; and the influence which the patient's age, sex, concomitant disease states, concurrent drug therapy, foods and diagnostic procedures may have on their activities and dispositions. With the use of appropriate reference materials, a pharmacist should be able to compare and contrast the drugs commonly used to treat a specific medical condition and be able to recommend to another health professional a specific drug product and dose which will be the most beneficial and produce the fewest adverse effects for a particular therapeutic need.

When patients present themselves to the pharmacist with symptoms or a self-diagnosed condition, the pharmacist should be able to form a tentative assessment of the severity of the problem. The pharmacist should then be able to assist the patient to determine whether nonprescription medications or referral to another health professional or agency is indicated. If the patient elects to self-medicate with nonprescription medications, the pharmacist should be able to evaluate the drug products available to treat that condition and assist the patient in the selection of a safe and beneficial mode of therapy, taking into

consideration any concurrent medical problems and medications. The pharmacist should be able to advise the patient when additional medical attention is indicated if the patient's condition worsens or fails to improve within a reasonable time period.

A pharmacist having access to pertinent objective and subjective patient medical information should be able to monitor and evaluate the response of the patient and recognize the common side effects and toxicities attributable to the drug therapy. In the absence of the desired therapeutic response or the presence of a drug side effect, the pharmacist should be able to recommend appropriate changes in the drug therapy plan to the physician, other health professionals, or the patient which would result in the desired therapeutic response and/or alleviate the side effect.

From a complete medical profile and medical history, if available, a pharmacist should be able to deduce the nature of the patient's medical problems. Using an available medication profile and medical history containing the patient's medical problems and medications, the pharmacist should be able to identify potential drug/drug, drug/laboratory test, drug/diet, or drug/disease interactions as well as problems related to noncompliance.

A pharmacist should be able to effectively communicate with a patient (orally and/or in writing) the proper instructions for use and storage of drugs as well as appropriate precautions and common side effects. The pharmacist should be able to provide patient-specific drug information to other health professionals and also provide drug education to the public.

A pharmacist should be able to utilize major reference sources to answer basic drug information and drug ingestion questions. In cases of drug ingestion, the pharmacist should be able to assess the severity of the situation in order to determine whether to recommend immediate therapy or to refer the patient to the nearest poison control center or emergency room.

A pharmacist should be able to evaluate the validity of the conclusions reached by the authors of a literature report of a clinical trial and summarize the practical implications of the findings as they relate to the clinical use of drugs. The pharmacist should be able to appraise advertising claims for drug products objectively.

A pharmacist, using appropriate reference materials, should be able to determine the stability characteristics and storage requirements of drugs and drug products; the factors that influence the bioavailability of various dosage forms; how the route of administration may influence the absorption of a specific drug form, its dosage form; and how these factors may interact to influence the onset, peak activity or duration of the activity of the drug.

A pharmacist should be aware of the current legal limitations on procurement, storage, distribution and sale of drugs. The pharmacist should also be aware of current FDA-approved indications for drugs, acceptable

medical practice and the ethical and legal responsibilities to the patient to whom drugs are dispensed.

A pharmacist should be capable of compounding drugs or drug combinations in acceptable dosage forms.

A pharmacist, using appropriate reference materials, should be capable of identifying a drug based on its unique description and its proposed use.

A pharmacist shall be responsible for assuring, whenever possible, that the safety of a patient and/or the integrity of a patient's pharmaceutical care is not jeopardized by a pharmacist who is cognitively impaired, whether due to a mental disease or state, or substance abuse. A pharmacist, therefore, shall be able to recognize the common symptoms of such impairments and shall be capable of initiating appropriate actions.

A pharmacist is a professional who should identify, achieve and maintain those competencies directly relevant to his or her specific area of practice.

CONCLUSION

The Board of Pharmacy is aware that the education of a pharmacist in the state of California has changed extensively over the past few years in that there has been an increased emphasis placed upon the biological sciences, pathophysiology, biopharmaceutics and pharmacokinetics, therapeutics and clinical clerkships.

As a result of both this education and legislation which permits better use of the pharmacist as a health professional, a growing number of clinically-trained pharmacists are providing direct patient care management either as part of a medical team or under the supervision of a physician. Examples of such patient care management functions include: triage; medication refills; management of post-diagnosed, stabilized patients with medical conditions which are primarily controlled through chronic drug therapy (e.g., hypertension, diabetes, conditions requiring anticoagulation therapy); diagnosis and management of acute, self-limited disease under protocol; preparation, administration and monitoring of parenteral medications requiring close therapeutic monitoring (e.g., cancer chemotherapeutic agents, heparin, antiarrhythmic agents, hyperalimentation); and establishment of specific dosing regimens for selected drugs based upon patient specific pharmacokinetic parameters.

The board encourages pharmacists with appropriate clinical training to pursue lawfully expanded roles as health professionals. Furthermore, the board encourages every pharmacist to utilize his or her knowledge and expertise in drug therapy to promote better patient care.

PART VII: AFTER THE EXAMINATION IS OVER

GRADING THE EXAMINATION

The essay examination is hand-graded by members of the board's Competency Committee on the basis of predetermined answers. Multiple-choice answer sheets are electronically scanned twice with the first scan compared to the second scan. Any discrepancies are resolved by hand.

Following each administration of the examination, a series of computer-generated statistics are compiled on each multiple-choice question. These statistics assist the board in determining if a question is a fair measure of knowledge and is not ambiguous. Any question shown to fail in these regards is re-evaluated by the board.

PASSING GRADES

To pass the pharmacist licensure examination, the candidate must achieve a score of 75 or more on each section.

A candidate who achieves a score of 75 or above on one section but achieves a score of less than 75 on the other section, must retake the full examination in the future.

TEST RESULTS

Test results will be mailed to candidates approximately six to eight weeks after the examination. The date planned for release of the results will be announced during the examination. Do not call the board for results -- they will not be released over the telephone.

A candidate who passes the examination may be issued a pharmacist license after the Board of Pharmacy possesses documentation supporting that the candidate has completed all requirements for licensure. This includes:

- 1) All college transcripts, including one showing the pharmacy degree awarded.
- 2) All intern hours and experience affidavits, certifying 1,500 hours of intern experience and completion of all the specified learned objectives.
- 3) All licensure and employment verifications (for candidates who have worked at least one year as a registered pharmacist in another state).
- 4) The initial license of \$150.*

* Subject to change in the future.

Candidates who pass the examination but who fail to pay the fee to become licensed within two years after being notified about their eligibility to become licensed as pharmacists are considered to have abandoned their applications (California Code of Regulations section 1720). Before being eligible again for licensure, such a candidate must file a new application and fulfill all

requirements in effect at the time of application, including retaking and passing the examination.

TELEPHONE REQUESTS FOR EXAMINATION SCORES

Candidates are advised not to telephone the board office for information regarding examination results. Board staff is not permitted to release examination results by telephone. Moreover, each call delays both the processing of the examination and the mailing of results to all candidates.

REGRADING AN EXAMINATION

On occasion, a candidate who has not passed the examination may believe that this is due to a grading error. Although scores are reviewed for possible error prior to release, candidates may request a regrading of the examination. Requests for regrading must be submitted in writing within 15 days of the postmark appearing on the notice of test results. The request must be accompanied by a regrading fee of \$85*, which will be refunded if the regrading results in a passing score.

*Subject to change in the future

COMMENTS OR COMPLAINTS

Any candidate wishing to comment on or complain about test center facilities, examination personnel, examination content or any other matter relating to the licensure examination, may write to the executive officer of the State Board of Pharmacy following the examination. Please include:

- 1) Your name, identification number and complete mailing address.
- 2) The date and location of the examination.

Anonymous letters make it impossible to verify or follow-up on information.

The multiple-choice section is based on the following content outline:

I. Provide Medication to Patients (approximately 130 items)

A. Organize and Evaluate Information

1. Receive prescription/medication order from patient/patient's representative.
2. Obtain information from the patient/patient's representative for patient profile (diagnosis or desired therapeutic outcome, allergies, adverse reactions, medical history, etc.).
3. Obtain information from prescriber and/or health care professionals for patient profile (diagnosis or desired therapeutic outcome, allergies, adverse reactions, medical history, etc.).
4. Assess prescription/medication order for completeness, correctness, authenticity, legality, and reimbursement eligibility.
5. Assess prescription/medication order for appropriateness (e.g., improper drug selection,

PART VIII: CONTENT OF THE EXAMINATION

The licensure examination is comprised of two sections: an essay section and a multiple-choice section (the multiple-choice section is administered in two parts).

The essay section measures the applicant's ability to function as a practicing pharmacist. The applicant will be asked to evaluate patient information and to react with answers appropriate to the situation; to demonstrate his or her knowledge of prescription requirements, commonly used laboratory tests, commonly prescribed drugs (both by trade and generic name), and commonly available over-the-counter (OTC) items found in the average pharmacy; to provide patient consultation in language understandable to the patient; and to recognize common prescription errors. Short concise answers are expected.

- underdosage, dosage, overdosage, drug interactions, dosage form, delivery system).
6. Review, evaluate, and update the medical record/patient profile for disease states, clinical condition, medication use, allergies, adverse reactions, visual impairment, physical disability, medical/surgical therapies, laboratory findings, physical assessments, and/or diagnostic tests.
7. Evaluate the pharmaceutical information needs of the patient/patient's representative.
8. Apply and assess basic scientific principles in the prediction of drug actions (biopharmaceutic, pharmacokinetic, pharmacologic, and pharmacodynamics).
9. Analyze and evaluate current literature.

B. Dispense Medications

1. Enter prescription information onto patient profile.
2. Select the manufacturer of product(s) to be dispensed for a prescription/medication order.
3. Calibrate equipment needed to prepare or compound the prescription/medication order.
4. Compound medications for dispensing according to prescription formula or instructions.
5. Measure or count finished dosage forms for dispensing.
6. Prepare IV admixtures.
7. Record preparation of medication in various dosage forms.
8. Record preparation of controlled substances for dispensing.
9. Record preparation of investigational drugs for dispensing.
10. Package the preparation.
11. Prepare and/or obtain the label(s).
12. Affix label(s) and auxiliary label(s) to container(s).
13. Perform intermediate checks during processing of the prescription/medication order.
14. Prior to dispensing, perform the final check of the medication (e.g., correct drug, dose, route).

II. Monitor and Manage Patient Outcomes (approximately 110 items)

A. Determine a Course of Action

1. Determine desired therapeutic outcomes.
2. Develop a therapeutic regimen involving prescription medications (e.g., recommend alteration of prescribed drug regimen, if necessary; select drug).
3. Recommend a nonprescription medication regimen (e.g., OTC product selection, dosage, dosage form).
4. Recommend a non-drug regimen (e.g., diet, exercise, physical therapy).
5. Determine the need for a referral.
6. Develop a monitoring plan to evaluate effectiveness of the therapy and adverse effects.
7. Communicate with patient/patient's representative, the prescriber, and other health care professionals about the therapeutic plan.
8. Record the therapeutic plan.

B. Counsel Patients

1. Assess the patient's knowledge of the disease and treatment.
2. Counsel patient/patient's representative regarding prescription medication therapy.
3. Counsel patient/patient's representative regarding nonprescription medication (OTC).
4. Counsel patient/patient's representative regarding non-drug therapy.
5. Explain techniques for self-monitoring of therapy.
6. Provide supplemental information, as indicated (e.g., patient package inserts, computer generated information, videos).
7. Verify the patient's/patient representative's understanding of the information presented.

C. Manage Therapy

1. Counsel patient/patient's representative in the use of self-monitoring devices (e.g., meters, test kits).
2. Recommend/order necessary monitoring and screening procedures (e.g., blood pressure, glucose levels, drug levels).
3. Monitor and assess patient to ensure compliance with prescribed therapy.
4. Monitor patient to identify changes in health status (e.g., onset of new disease states, changes in clinical condition).
5. Work with patient/patient's representative, prescriber, and other health care professionals to identify and resolve problems that arise with patient's therapy (e.g., ADRs, financial barriers to

- therapy).
- 6. Recommend modifications to the therapeutic plan, when necessary (e.g., changes in health status, failure to achieve the desired therapeutic objectives, development of new problems).
- 7. Communicate results of monitoring to patient/patient's representative, prescriber, and/or other health care professionals.
- 8. Record monitoring activities and findings.

D. Provide Drug Information

- 1. Provide drug information to the public and to health care professionals.
- 2. Provide poison information to the public and to health care professionals regarding poison identification, adverse effects, and treatment.
- 3. Provide in-service education to health care professionals.

III. Manage Operations (approximately 60 items)

A. Purchase Pharmaceuticals, Devices, and Supplies

- 1. Determine drug product selection guidelines for multisource products (e.g., generic substitutions).
- 2. Place orders for pharmaceuticals, durable medical equipment, devices, and supplies, including expediting of emergency orders.
- 3. Maintain a record-keeping system of items purchased/received/returned in compliance with legal requirements and professional standards.

B. Control Inventory

- 1. Place pharmaceuticals, durable medical equipment, devices, and supplies in inventory under proper storage conditions.
- 2. Remove from inventory expired or recalled pharmaceuticals, durable medical equipment, devices, and supplies, and document actions taken.
- 3. Communicate changes in product availability (e.g., formulary changes, recalls) to pharmacy staff, patient/patient's representative, physicians, and other health care professionals.
- 4. Maintain policies and procedures to deter theft and/or drug diversion.
- 5. Maintain a record of controlled substances received, stored, and removed from inventory.
- 6. Maintain a record of investigational drugs received, stored, and removed from inventory.
- 7. Maintain record-keeping systems for repackaging of pharmaceuticals.

C. Perform Quality Control

- 1. Assess pharmacist and pharmacy technician performance in providing pharmaceutical services to individual patients.
- 2. Assess the accuracy of medication dispensing by pharmacy staff.
- 3. Assess the accuracy of medication administration by pharmacy and non-pharmacy staff.

D. Manage Operations, Human Resources, and Information Systems

- 1. Monitor the practice site and/or service area for compliance with federal, state, and local laws, regulations, and professional standards.
- 2. Supervise the work of pharmacists, pharmacy technicians, and/or other pharmacy staff.
- 3. Ensure the availability of patient-related information (e.g., patient profiles, medication administration records).
- 4. Perform periodic backup of stored data (e.g., computer, microfiches, paper).

E. Manage Medication Use System

- 1. Participate in the development and/or implementation and/or management of a formulary system (e.g., serve on pharmacy and therapeutics committees).
- 2. Apply therapeutic interchange (i.e., therapeutic substitution) guidelines.
- 3. Compile necessary data to review therapeutic and/or generic classes of drugs and new drug products for formulary consideration.
- 4. Conduct and/or communicate the results of drug use evaluations to prescribers and other interested parties.
- 5. Provide and record educational interventions to improve prescribing patterns.
- 6. Develop, monitor, and revise treatment/drug use protocols as needed, to ensure optimal therapeutic effect and cost effectiveness.

7. Establish and maintain a system by which adverse drug reactions (ADRs) are documented, analyzed, evaluated, and reported.

The knowledge tested in the multiple-choice section may also include the following:

- Laws and regulations governing the practice of pharmacy including, but not limited to: California Pharmacy Law and Board of Pharmacy Regulations, the Controlled Substances Act, and the State Uniform Controlled Substances Act

Emphasis will be placed on application of legal requirements to actual practice situations, or determining whether a situation presented in the question is legal or illegal.
- General pharmacy practice: medical terminology, drug identification, drug doses, common interactions, common side effects, compounding and dispensing, monitoring pediatric, adult or geriatric patient profiles, drug information, nonprescription medications and general pharmacology
- Mathematical calculations related to pharmacy practice
- Therapeutic and pharmacologic considerations of all agents used in, but not limited to, the following categories:
 - (a) cardiovascular, respiratory, gastrointestinal, renal, dermatological, bone and joint
 - (b) psychiatric, neurologic, hematologic, hormonal, metabolic, fluid and electrolyte, nutrition, ophthalmologic, obstetric and gynecologic
 - (c) neoplastic and infectious diseases
- Biopharmaceutics and pharmacokinetics
- Poisonings and drug abuse